

2 EXECUTIVE SUMMARY OF THE EIR

2.1 PROJECT SUMMARY

The project consists of the expansion of an existing dairy facility located approximately five miles south of El Nido in unincorporated Merced County. The existing Antonio Brasil Dairy is located on an approximate 53-acre portion of a 439-acre site. Approximately 376 acres of the project site are currently used for the production of crops and application of manure process water, 184 acres of which are located in Madera County. Conditional Use Permit CUP11-010 proposes to expand the existing dairy so that the modified dairy would house a total of 6,385 animals. This would represent an increase of 4,035 animals from existing numbers. The proposed dairy expansion project would also include improvements to the active dairy facility to accommodate the proposed herd increase, including the construction of three (3) new freestalls, a new shade, and 20 new corrals. Construction of the proposed structures would convert approximately 32 acres of existing cropland to active dairy facilities, increasing the area of operation to 85 acres. For more detailed information about project, see DEIR Chapter 3, *Project Description*.

2.2 SUMMARY OF PROJECT ALTERNATIVES

Section 15126.6 of the California Environmental Quality Act (CEQA) Guidelines requires that an Environmental Impact Report (EIR) describe and comparatively evaluate a range of reasonable alternatives to a project that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. Thus, the range of alternatives evaluated in the following analysis is dictated by the range of significant impacts identified in this EIR, and evaluated alternatives are limited to those that would reduce or eliminate identified environmental impacts. As discussed in this EIR, the secondary and cumulative impacts of implementing the Antonio Brasil Dairy Expansion project would lead to significant adverse and unavoidable impacts. Accordingly, one alternative in addition to the required No Project alternative, listed below, was formulated to illustrate the range of projects that could be implemented as an alternative to the proposed Antonio Brasil Dairy Expansion project.

- Alternative 1 – No Project Alternative
- Alternative 2 – Air Emissions Limited Herd Size

Based on the comparative evaluation contained in the EIR, other than the No Project Alternative, Alternative 2 (Air Emissions Limited Herd Size Alternative) would reduce the magnitude of the most impacts as an action alternative. Several of the significant impacts identified for the project would be reduced, but not eliminated, with implementation of Alternative 2. Alternative 2 would be the environmentally superior alternative.

2.3 AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED

The potential areas of controversy and issues to be resolved through the EIR process were derived through analysis conducted during preparation of the Notice of Preparation (NOP) (See Appendix A, *Notice of Preparation and Initial Study*). These areas are summarized as follows:

- Short-term construction air quality impacts and long-term air quality impacts from an increase in operational emissions, including generation of odors (see Chapter 5, *Air Quality and Odors*).
- Potential loss of foraging habitat for special-status species (see Chapter 6, *Biological Resources*).
- Potential interference with night-active wildlife, wildlife movement corridors, or nursery sites (see Chapter 6, *Biological Resources*).
- Cause a substantial adverse change in the significance paleontological resources, unique geological features, or disturbances to human remains
- Greenhouse gas emissions from direct and indirect sources (see Chapter 8, *Greenhouse Gas Emissions and Energy*).
- Potential generation of nuisance insects and contamination from manure pathogens at off-site locations as a result of project operations (see Chapter 9, *Hazards, Health Risks, and Vectors*).
- Violation of water quality standards, depletion of groundwater, and groundwater and surface water contamination (see Chapter 10, *Hydrology and Water Quality*).
- Conflict with Merced County Zoning Code and Animal Confinement Ordinance requirements, and land use incompatibility with surrounding residences (see Chapter 11, *Land Use Compatibility*).

In addition, responses received from public agencies and the public during circulation of the NOP raised the following major concerns:

- Potential impacts to air quality
- Potential impacts to Merced County roadways
- Potential impacts to cultural resources

2.4 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Table 2-1 presents a summary of project impacts and proposed mitigation measures that would avoid or minimize potential impacts. The level of significance for each environmental impact is indicated both before and after mitigation. For a detailed discussion of the proposed project impacts and mitigation measures, see Chapters 5 through 11 of the Draft EIR.

Table 2-1 Summary of Impacts and Mitigation Measures

| Environmental Impact | Level of Significance Before Mitigation | | Mitigation Measure/Alternative | Level of Significance After Mitigation | |
|--|---|----|--|--|----|
| | LS | PS | | LS | SU |
| Air Quality and Odors | | | | | |
| <p>Impact AQ-1: Construction-related emissions (ROG, NO_x, CO, SO₂, and Fugitive Dust) Construction activities associated with the Antonio Brasil Dairy Expansion project would result in short-term air emissions including ROG, CO, SO₂, NO_x, and fugitive dust. Because emissions of construction-related ozone precursors and fugitive dust would not exceed the threshold values used by the SJVAPCD for stationary sources, this would be a less-than-significant impact.</p> | LS | | <p>Mitigation Measure AQ-1: None required.</p> | LS | |
| <p>Impact AQ-2: Carbon monoxide emissions from operational equipment and increased traffic Operation of equipment used at the Antonio Brasil Dairy Expansion for processing and farming would result in the emissions of carbon monoxide. Because the magnitude of emissions from the Antonio Brasil Dairy Expansion would not exceed SJVAPCD significance criteria, this would be a less-than-significant impact.</p> | LS | | <p>Mitigation Measure AQ-2: None required.</p> | LS | |

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|---|---|----|--|--|----|
| | LS | PS | | LS | SU |
| <p>Impact AQ-3: Ozone precursor emissions from dairy operations, farm equipment, and increased traffic</p> <p>Emissions of ROG/VOC and NO_x from dairy operations, farm equipment, and increased traffic at the Antonio Brasil Dairy Expansion could exceed SJVAPCD emissions criteria with establishment of the expanded herd.</p> | | PS | <p>Mitigation Measure AQ-3:</p> <p>The proposed dairy expansion would exceed SJVAPCD permit thresholds for ROG emissions; therefore, in order to reduce emissions to below SJVAPCD permit thresholds, prior to the initiation of operations, the applicant shall implement all air quality provisions of the ACO, including Chapter 18.48.50 U; comply with all applicable SJVAPCD Rules including but not limited to: Rule 2010 – apply for an Authority to Construct/Permit to Operate; Rule 2201 New Source Review; Rule 4570, Confined Animal Facilities; implement BACT/BARCT mitigation measures appropriate for this dairy operation to be developed during permit review in cooperation with SJVAPCD staff, including but not limited to all applicable measures in Appendix D of this EIR; and Rules 4701 and 4702, Internal Combustion Engines.</p> | | SU |
| | | | Implementation of Alternative 1, No Project, would reduce the magnitude and significance of this effect. | LS | |
| | | | Implementation of Alternative 2, Limited Herd Size, would decrease the magnitude and the significance of this effect. | LS | |
| <p>Impact AQ-4: PM₁₀ and PM_{2.5} emissions from fugitive dust during project operations</p> <p>Operations from the Antonio Brasil Dairy Expansion would result in fugitive dust (PM₁₀ and PM_{2.5}) emissions from wind erosion, farming operations, animal movement in unpaved corrals, vehicle use along unpaved driveways and access roads, and equipment operation. Because pollutant concentrations would not exceed SJVAPCD emissions thresholds, this would be a less-than-significant impact.</p> | LS | | <p>Mitigation Measure AQ-4:</p> <p>None required.</p> | LS | |

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| | LS | PS | | LS | SU |
| <p>Impact AQ-5: Hazardous pollutant emissions from project operations</p> <p>The proposed dairy would be a potential source of hazardous air pollutants from animal movement, manure management, and on-site mobile sources. As proposed, this project would not exceed the thresholds for health risks, and the project would not generate a potentially significant hazardous air pollutant impact.</p> | LS | | <p>Mitigation Measure AQ-5:</p> <p>None required.</p> | LS | |
| <p>Impact AQ-6: Adverse odor from project operations</p> <p>Operations and manure management at the Antonio Brasil Dairy Expansion in Merced County may emit odors that may be bothersome to isolated rural residents, the only nearby sensitive receptors.</p> | | PS | <p>Mitigation Measure AQ-6a:</p> <p>To minimize potential for odor nuisance conditions, prior to initiating operations at the new facilities, the applicant shall prepare an Odor Control Plan for submission and approval by the Merced DEH. Following approval, the applicant shall implement the approved Plan. The following odor control measures shall be required in the Plan:</p> <ul style="list-style-type: none"> • Liquid manure utilized for irrigation purposes shall be managed so that it does not stand in the application field for more than 24 hours. • Implement odor control measures as contained in the Plan, which may include, but not be limited to the following: <ol style="list-style-type: none"> 1. Ration/diet manipulation <p>This approach involves the alteration of feed in order to reduce the volume of substrate available for anaerobic activity. The approach includes reducing the nitrogen content of food, phase feeding, repartitioning agents, improved animal genetics, and various feed additives.</p> 2. Manure management <p>Utilize best management practices for manure management, including minimizing the time between excretion and application, and aeration of retention basins.</p> <p>Additionally, implement the following additional best management practices:</p> | LS | |

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|----------------------|---|----|---|--|----|
| | LS | PS | | LS | SU |
| | | | <p><i>Manure Collection Areas</i></p> <ul style="list-style-type: none"> • Clean out manure generated at the freestall barns daily and corrals at least twice a year, or more frequently as necessary to minimize odors; • Keep cattle as dry and clean as possible at all times; • Scrape manure from the corrals and bedding from the freestall barns and corrals at a frequency that would reduce or minimize odors. <p><i>Manure Treatment and Application</i></p> <ul style="list-style-type: none"> • Minimize moisture content of stockpiled manure/retained solids to a level that would reduce the potential for release of odorous compounds during storage; • Minimally agitate stockpiled manure during loading for off-site transport; • Mix process water with irrigation water prior to irrigation (dilution rate shall be adequate to minimize odor levels and maintain appropriate nutrient content in effluent); • Clean up manure spills upon occurrence; • Maintain and operate settling ponds and retention ponds to minimize odor levels. <p><i>General</i></p> <ul style="list-style-type: none"> • Implement dust suppression measures to prevent the release of odorous compound-carrying fugitive dust; • During project operations, the dairy operator/owner shall respond to neighbors who are adversely affected by odors generated at the project site and take prompt corrective action. <p>If necessary and feasible, the animal confinement operation must implement the following additional measures:</p> <ol style="list-style-type: none"> 1. Manure treatment Manure treatment methods include maintaining aerobic conditions during storage, aerobic treatment using aerated lagoons or composting, anaerobic digestion, and biochemical treatment. | | |

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| | LS | PS | | LS | SU |
| | | | 2. Capture and treatment of emitted gases This approach includes the use of covered storage pits or lagoons, soil incorporation of applied liquid or solid manure, and dry scrubbers for building exhaust gases including soil absorption beds, bio-filter fields, or packed beds. 3. Enhanced air dispersion Odor and other air contaminants are diluted to below threshold levels by atmospheric turbulence that increases with wind velocity, solar radiation, and roughness elements such as buildings, trees, or barriers. Sound site selection with adequate separation distance and elevated sources or mechanical turbulence can aid in dispersing odorous compounds and avoiding nuisance conditions. 4. Enhanced land spreading procedures Procedures may be modified to minimize impacts by avoiding spreading when the wind is blowing towards populated areas, employing technologies to incorporate manure into soil during or directly after application (i.e. injection, plowing, disking), or spreading manure in thin layers during warm weather. | | |
| | | | Mitigation Measure AQ-6b: Implement the nuisance control measures set forth in Mitigation Measures HAZ-1a and HAZ-1b. | | |
| Impact AQ-7: Impacts to ambient air quality Operations from the Antonio Brasil Dairy Expansion would result in emissions of criteria air pollutants that could impact ambient air quality through a violation of air quality standards. Because air emissions would not exceed ambient air quality standards for areas adjacent to the dairy, this would be a less-than-significant impact. | LS | | Mitigation Measure AQ-7: None required. | LS | |

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| | LS | PS | | LS | SU |
| <p>Impact AQ-8: Conflict with or obstruct implementation of the applicable air quality plan</p> <p>Implementation of the dairy expansion project would not conflict with or obstruct implementation of the SJVAPCD air quality attainment plans.</p> | LS | | <p>Mitigation Measure AQ-8:</p> <p>None required.</p> | LS | |
| Biological Resources | | | | | |
| <p>Impact BIO-1: Loss of foraging habitat for Swainson’s hawk</p> <p>Implementation of the proposed Antonio Brasil Dairy Expansion project would result in the loss of potential foraging habitat for Swainson’s hawk, a state threatened species.</p> | | PS | <p>Mitigation Measure BIO-1:</p> <p>The project may adversely affect active Swainson’s hawk nests and foraging habitat within the project vicinity or suitable foraging habitat within a 10-mile radius of the project because the project would remove 32 acres of Swainson’s hawk foraging habitat. Therefore the following CDFW-pre approved CEQA mitigation measures shall be required for this project and are hereby incorporated by reference:</p> <p>1. Protocol Surveys. The project applicant must conduct a protocol-level survey in conformance with the “Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley,” Swainson’s Hawk Technical Advisory Committee (May 31, 2000). This protocol prescribes minimum standards for survey equipment, mode of survey, angle and distance to tree, speed, visual and audible clues, distractions, notes and observations, and timing of surveys.</p> <p>a. Nesting surveys can only be performed between January 1 and July 30 and will vary depending on seasonal conditions and the actual nesting period.</p> <p>b. Surveys must be performed by a qualified raptor biologist.</p> <p>c. A written report with the pre-construction survey results must be provided to the Planning Department and CDFW within 30 days prior to commencement of construction-related activities. The report shall include: the date of the report, authors and affiliations, contact information, introduction, methods, study location, including map, results, discussion, and literature cited.</p> | LS | |

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| | | | d. The project applicant must submit CNDDDB forms for Swainson’s hawk occurrences and for any other listed, fully protected, or species of special concern encountered and positively identified during the surveys. www.dfg.ca.gov/biogeodata/cnddb . | | |
| | | | <p>2. Nest Avoidance. If the required nesting surveys show there are no active nests within the appropriate radius then no additional mitigation will be required. If active nests are documented on the CNDDDB database, or other environmental study, or are discovered during the protocol survey, the project applicant must obtain CESA 2081 Management Authorization prior to the start of construction-related activities. CDFW pre-approved mitigation measures to avoid nest impacts during construction must include:</p> <p>a. No intensive new disturbances (for example, heavy equipment operation associated with construction, use of cranes or draglines, new rock crushing activities), habitat conversions, or other project-related activities that may cause nest abandonment or forced fledging, should be initiated within one-half mile (in rural areas) or one-quarter mile (in urbanized areas) of an active nest between March 1 and September 15, or August 15 if written CESA 2081 Management Authorization obtained from CDFW prior to such disturbance.</p> <p>b. Nest trees shall not be removed unless there is no feasible way of avoiding it. If a nest tree must be removed, written CESA 2081 Management Authorization must be obtained from CDFW prior to tree removal. Such written authorization must specify:</p> <p>i. The tree removal period, which can typically be expected to be between October 1 and February 1.</p> <p>ii. The conditions required to offset the loss of the nest tree.</p> <p>c. If disturbances, habitat conversions, or other project-related activities, that may cause nest abandonment or forced fledging, are necessary, within the nest protection buffer zone, monitoring of the nest site by a qualified raptor biologist, funded by the project applicant, shall be required, to determine if the nest is abandoned. If the nest is abandoned, but the nestlings are still alive, the project proponent is required to fund the recovery and hacking, that is the controlled release of captive reared young of the nestling.</p> | | |

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| | | | d. Routine disturbances such as agricultural activities, commuter traffic, and routine maintenance activities within one-quarter mile of an active nest are not prohibited. | | |
| | | | <p>3a. CESA 2081 Management Authorization. The project applicant must obtain a CESA 2081 Management Authorization from CDFW prior to the issuance of the first building permit. CDFW provides options for off-site habitat management by fee title acquisition or conservation easement acquisition with CDFW-approved management plan, and by the acquisition of comparable habitat. Mitigation credits may be pursued through a CDFW-approved mitigation bank for Swainson’s hawk impacts in Merced County. Go to: www.dfg.ca.gov/habcon/conplan/mitbank/catalogue</p> <p>The CDFW pre-approved CEQA mitigation measures are found at “DFW Staff Report Regarding Mitigation for Impacts to Swainson’s hawks in the Central Valley of California,” CDFW (November 8, 1994).</p> <p>3b. The Department of Fish and Wildlife mitigation standards for these impacts are contained in the following regulatory guidance documents.</p> <p>“DFW Staff Report Regarding Mitigation for Impacts to Swainson’s Hawks in the Central Valley of California,” DFW (November 8, 1994). This report contains recommended assessment and management measures to reduce impacts to Swainson’s hawk nesting and foraging habitat.</p> <p>“Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley,” Swainson’s Hawk Technical Advisory Committee (May 31, 2000). This protocol prescribes minimum standards for survey equipment, mode of survey, angle and distance to tree, speed, visual and audible clues, distractions, notes and observations, and timing of surveys.</p> <p>3c. Therefore, to mitigate impacts to a level below significance, prior to obtaining the first building permit, the project applicant shall obtain written CESA 2081 Management Authorization from the</p> | | |

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| | | | Department of Fish and Wildlife for nesting and foraging habitat impacts prior to obtaining an occupancy permit. In addition, if construction-related activity would result in the removal of an active nest during the Swainson's hawk breeding season, between March 1 and September 15, the applicant shall obtain prior written authorization from the U.S. Fish and Wildlife Service to ensure compliance with the Migratory Bird Treaty Act (16 U.S.C. 703-711) to avoid impacts to actively nesting Swainson's hawks. | | |
| <p>Impact BIO-2: Loss of foraging and nesting habitat for sensitive bird species and migratory birds, including burrowing owl</p> <p>Implementation of the proposed Antonio Brasil Dairy Expansion project would result in the loss of potential foraging habitat for special-status and/or migratory bird species.</p> | | PS | <p>Mitigation Measure BIO-2a:</p> <p>Implement BIO-1, which includes measures to minimize potential impacts to Swainson's hawk.</p> | LS | |
| | | | <p>Mitigation Measure BIO-2b:</p> <p>Within 14 days prior to construction, a qualified biologist or ornithologist shall complete a preconstruction survey for burrowing owls over all areas of ground disturbance proposed for dairy construction in accordance with the <i>Staff Report on Burrowing Owl Mitigation</i> (CDFW 2012a). If owls are identified in or near the area to be disturbed, buffer areas around the occupied burrows shall be established, inside of which no disturbance shall occur. The size of the buffer area required would vary depending on whether construction occurs during non-breeding or breeding season. If avoidance requirements cannot be met, passive relocation of owls using one-way doors may be implemented, but only during the non-breeding season. For each vacated burrow that would be excavated by project construction, one alternative unoccupied natural or artificial burrow shall be provided outside of the construction area. Consultation with CDFW is required for mitigation recommendations if a recently occupied burrow is destroyed.</p> | | |

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| | | | <p>Mitigation Measure BIO-2c:</p> <p>Additional avoidance measures shall be implemented prior to and during construction if burrowing owls occur within the site:</p> <ul style="list-style-type: none"> • Avoid disturbing occupied burrows during the nesting period, from February 1 through August 31. • Avoid impacting burrows occupied during the non-breeding season by migratory or non-migratory resident burrowing owls. • Avoid direct destruction of burrows during construction. • Prior to construction, conduct a Worker Awareness Program (environmental education) to inform project workers of their responsibilities regarding sensitive biological resources and increase the on-site worker’s commitment to burrowing owl protection. • Place visible markers near burrows to ensure that farm equipment and other machinery does not collapse burrows. • Do not fumigate, use treated bait or other means of poisoning nuisance animals in areas where burrowing owls are known or suspected to occur (e.g., sites observed with nesting owls, designated use areas). • Restrict the use of treated grain to poison mammals to the months of January and February. | | |
| | | | <p>Mitigation Measure BIO-2d:</p> <p>To reduce project-related impacts to active bird nests and to reduce the potential for construction activities to interrupt breeding and rearing behaviors of birds, the following measures shall be implemented prior to and during construction activities:</p> <ul style="list-style-type: none"> • Implement avoidance measures included in Mitigation Measure BIO-2c. • A preconstruction survey shall be conducted to determine the presence of nesting birds if ground clearing or construction activities will be initiated during the breeding season (February 1 through September 15). The project site and potential nesting areas within 500 feet of the site shall be surveyed 14 to 30 days prior to the initiation of construction. Surveys shall be performed by a qualified biologist or ornithologist to verify the presence or absence of nesting birds. | | |

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| | | | <ul style="list-style-type: none"> Construction shall not occur within a 500-foot buffer surrounding nests of raptors (including burrowing owls) or a 250-foot buffer surrounding nests of migratory birds (including killdeer, mountain plover, black-necked stilt, etc). If construction within these buffer areas is required, or if nests must be removed to allow continuation of construction, then approval must be obtained from the California Department of Fish and Wildlife. | | |
| <p>Impact BIO-3: Potential selenium and heavy metals effects to biological resources</p> <p>The use of supplemented feeds at the proposed Antonio Brasil Dairy Expansion could result in introduction of heavy metals into the environment by the application of dairy waste to on-site agricultural fields and retention in ponds. However, project compliance with ACO and CVRWQCB regulations for waste, soil, and groundwater monitoring and remediation would provide protection from heavy metal contamination within the project area and would reduce this impact to less than significant.</p> | LS | | <p>Mitigation Measure BIO-3:</p> <p>None required.</p> | LS | |
| <p>Impact BIO-4: Loss of habitat for the San Joaquin kit fox and/or American badger</p> <p>Implementation of the proposed dairy expansion project could impact den habitat for the San Joaquin Kit fox or the American badger.</p> | | PS | <p>Mitigation Measure BIO-4:</p> <p>To minimize potential impacts to both the San Joaquin Kit Fox and American badger, prior to any construction activities within the 32 acres proposed for dairy operations, the project applicant shall follow the <i>Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance</i> (USFWS 2011). The measures listed below have been excerpted from those guidelines and would protect both San Joaquin Kit fox and American badgers.</p> <ol style="list-style-type: none"> Prior to the commencement of construction, a preconstruction survey shall be conducted by a qualified biologist over all areas of ground disturbance for construction of the dairy to determine presence/absence of this species in accordance with USFWS recommendations. | LS | |

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| | LS | PS | | LS | SU |
| | | | <ol style="list-style-type: none"> 2. Project-related vehicles should observe a daytime speed limit of 20-mph throughout the site in all project areas, except on county roads and state and federal highways; this is particularly important at night when kit foxes are most active. Night-time construction should be minimized to the extent possible. However if it does occur, then the speed limit should be reduced to 10-mph. Off-road traffic outside of designated project areas should be prohibited. 3. To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than two-feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the Service and the California Department of Fish and Wildlife (CDFW) shall be contacted as noted under Measure 11 referenced below. 4. Kit foxes are attracted to den-like structures such as pipes, and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of four-inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until the Service has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped. 5. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or project site. 6. No firearms shall be allowed on the project site. 7. If any San Joaquin kit fox or American badger, or their sign, are detected onsite during the preconstruction survey, dogs and cats shall be kept off the project site to prevent harassment, mortality of kit foxes or American badgers, and/or destruction of their dens. | | |

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| | | | <p>8. Use of rodenticides and herbicides in project areas should be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation, as well as additional project-related restrictions deemed necessary by the Service. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to kit fox.</p> <p>9. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured, or entrapped kit fox. The representative will be identified during the employee education program, and their name and telephone number shall be provided to the Service.</p> <p>10. In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape, or the Service should be contacted for guidance.</p> <p>11. Any contractor, employee, or military or agency personnel who are responsible for inadvertently killing or injuring a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFW immediately in the case of a dead, injured, or entrapped kit fox. The CDFW contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or Mr. Paul Hoffman, the wildlife biologist, at (530) 934-9309. The Service should be contacted at the numbers below.</p> <p>12. The Sacramento Fish and Wildlife Office and CDFW shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal, and any other pertinent information. The Service contact is the Chief of the Division of Endangered Species, at the addresses and telephone numbers below. The CDFW contact is Mr. Paul Hoffman at 1701 Nimbus Road, Suite A, Rancho Cordova, California 95670, (530) 934-9309.</p> | | |

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| | | | <p>13. New sightings of kit fox shall be reported to the California Natural Diversity Database (CNDDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed should also be provided to the Service at the address below.</p> <p>14. Any project-related information required by the Service or questions concerning the above conditions or their implementation may be directed in writing to the U.S. Fish and Wildlife Service at: Endangered Species Division, 2800 Cottage Way, Suite W2605, Sacramento, California, 95825-1846, (916) 414-6620 or (916) 414-6600.</p> | | |
| <p>Impact BIO-5: Interference with night-active wildlife Implementation of the proposed Antonio Brasil Dairy Expansion project could interfere with night-active wildlife.</p> | | PS | <p>Mitigation Measure BIO-5: Project-related lighting shall be minimized and directed away or shielded from sensitive areas. Minimizing and/or directing/shielding lighting away from sensitive areas will ensure that disruption of night-active species will not occur. This will help reduce or minimize any accelerated night-time predation rates on the dairy and adjacent agricultural fields. Around residences and other areas where it may be appropriate, landscaping shall be used to shield the agricultural fields from additional lighting.</p> | LS | |
| <p>Impact BIO-6: Loss and/or modification to wetlands or degradation of riparian and vernal pool habitat Implementation of the proposed Antonio Brasil Dairy Expansion project would not result in the modification of wetlands or result in the loss of riparian or vernal pool habitat, since none of these resources or habitats are located on the project site.</p> | LS | | <p>Mitigation Measure BIO-6: None required.</p> | LS | |
| <p>Impact BIO-7: Loss or degradation of special-status plant species or sensitive natural communities Implementation of the proposed Antonio Brasil Dairy Expansion project would not result in the loss of special-status plant species or sensitive natural communities, since there are none on site.</p> | LS | | <p>Mitigation Measure BIO-7: None required.</p> | LS | |

| Environmental Impact | Level of Significance Before Mitigation | | Mitigation Measure/Alternative | Level of Significance After Mitigation | |
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| | LS | PS | | LS | SU |
| <p>Impact BIO-8: Interference with a wildlife movement corridor or nursery site Implementation of the proposed Antonio Brasil Dairy Expansion project could interfere with a wildlife movement corridor, migratory patterns, or wildlife within a nursery site.</p> | | PS | <p>Mitigation Measure BIO-8a: Implement BIO-1, which includes measures to minimize potential impacts to Swainson’s hawk.</p> | LS | |
| | | | <p>Mitigation Measure BIO-8b: Implement BIO-2b, which includes conducting pre-construction surveys and avoidance measures for burrowing owls.</p> | | |
| | | | <p>Mitigation Measure BIO-8c: Implement BIO-2c, which includes the implementation of avoidance measures for burrowing owls prior to and during construction.</p> | | |
| | | | <p>Mitigation Measure BIO-8d: Implement BIO-2d, which includes the implementation of avoidance measure, such as buffer areas, to reduce project-related impacts to active bird nests and to reduce the potential for construction activities to interrupt breeding and rearing behaviors of birds.</p> | | |
| <p>Impact BIO-9: Conflict with local policies or ordinances protecting biological resources Implementation of the proposed Antonio Brasil Dairy Expansion project would not conflict with local policies or ordinances that protect biological resources because it would be consistent with the Merced County Year 2000 General Plan, the Open Space Action Plan, and the ACO.</p> | LS | | <p>Mitigation Measure BIO-9: None required.</p> | LS | |

| Environmental Impact | Level of Significance Before Mitigation | | Mitigation Measure/Alternative | Level of Significance After Mitigation | |
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| | LS | PS | | LS | SU |
| Cultural Resources | | | | | |
| <p>Impact CUL-1: Cause a substantial adverse change in the significance of a historical or archaeological resource</p> <p>Implementation of the proposed Antonio Brasil Dairy Expansion project would lead to development and the construction of dairy facilities that could lead to substantial adverse changes in the significance of historical or archaeological resources within the project area. Even though the literature review indicated there were prehistoric and historic resources in the project vicinity, because the field investigation revealed no prehistoric or historic archaeological resources within the project area, this impact would be less than significant.</p> | LS | | <p>Mitigation Measure CUL-1:</p> <p>None required.</p> | LS | |
| <p>Impact CUL-2: Cause a substantial adverse change in the significance paleontological resources, unique geological features, or disturbances to human remains</p> <p>Implementation of the proposed Antonio Brasil Dairy Expansion project would lead to development and the construction of dairy facilities that could cause a substantial adverse change in archaeological and paleontological resources, unique geological features, or disturbance of human remains.</p> | | PS | <p>Mitigation Measure CUL-2a:</p> <p>The project applicant and construction contractor shall implement the plan to address discovery of unanticipated buried cultural or paleontological resources. If buried cultural resources such as chipped or ground stone, midden deposits, historic debris, building foundations, human bone, or paleontological resources are inadvertently discovered during ground-disturbing activities, work shall stop in that area and within 100 feet of the find until a qualified archaeologist or paleontologist can assess the significance of the find and, if necessary, develop responsible treatment measures in consultation with Merced County and other appropriate agencies.</p> | LS | |
| | | | <p>Mitigation Measure CUL-2b:</p> <p>The project applicant and construction contractor shall implement the plan to address discovery of human remains. If remains of Native American origin are discovered during proposed project construction, it shall be necessary to comply with state laws concerning the disposition of Native American burials, which fall within the jurisdiction of the NAHC. If any human remains are discovered or recognized in any location other than a dedicated cemetery, there shall be no further excavation or</p> | | |

| Environmental Impact | Level of Significance Before Mitigation | | Mitigation Measure/Alternative | Level of Significance After Mitigation | |
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| | | | disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until: <ul style="list-style-type: none"> • The County coroner has been informed and has determined that no investigation of the cause of death is required; and • If the remains are of Native American origin: <ul style="list-style-type: none"> √ The most likely descendants of the deceased Native Americans has made a recommendation to the landowner or person responsible for the excavation work for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC 5097.98; or √ The NAHC has been unable to identify a descendant, or the descendant failed to make a recommendation within 24 hours after being notified. According to the California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052). Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the NAHC. | | |
| Greenhouse Gases and Energy | | | | | |
| Impact GHG-1: Greenhouse gas emissions from project construction and operation Construction and operation of the Antonio Brasil Dairy Expansion project would result in greenhouse gas emissions from direct and indirect sources. Because the proposed project would not exceed established significance thresholds for GHG emissions, this would be a less-than-significant impact. | LS | | Mitigation Measure GHG-1: None required. | LS | |

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| | LS | PS | | LS | SU |
| <p>Impact GHG-2: Wasteful or inefficient use of energy</p> <p>Construction and operation of the Antonio Brasil Dairy Expansion project would result in the use of electricity, natural gas, and other fossil fuels. Because there may be energy inefficiencies in project facilities and operations, this would be a potentially significant impact.</p> | | PS | <p>Mitigation Measure GHG-2:</p> <p>The project applicant shall obtain from the appropriate utility company a full facility audit under the company’s energy management program. The project applicant shall implement all no cost items identified in the energy audit, and additionally shall implement their choice of low cost and/or investment grade opportunities to reach a total reduction of 10 percent in the energy consumption at the facility. The implementation shall be verified by submission of the utility “Installation Completion Form” or equivalent to Merced County Division of Environmental Health.</p> | LS | |
| <p>Impact GHG-3: Increase in GHG emissions that would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions</p> <p>Construction and operation of the Antonio Brasil Dairy Expansion project may be inconsistent with CARB’s Climate Change Scoping Plan. This would be a potentially significant impact.</p> | | PS | <p>Mitigation Measure GHG-3:</p> <p>Implement Mitigation Measure GHG-2, which requires an energy audit and implementation of energy use reduction measures.</p> | LS | |
| Hazards, Health Risks, and Vectors | | | | | |
| <p>Impact HAZ-1: Increased fly production and related nuisance effects</p> <p>Implementation of the proposed Antonio Brasil Dairy Expansion project could result in the generation of flies that can adversely affect animal and human health, and become a nuisance for other adjacent land uses. While there have been no nuisance fly complaints for the existing dairy facility, because the nearest residence is located less than 1,000 feet from proposed active dairy facilities, there is an increased potential for nuisance conditions, and this would be a potentially significant impact.</p> | | PS | <p>Mitigation Measure HAZ-1a:</p> <p>Prior to obtaining a building permit, the project sponsor shall prepare a Vector Control Plan to meet the requirements of the Animal Confinement Ordinance Chapter 18.48.055 C.8.c. The Vector Control Plan shall be submitted to the Merced County Division of Environmental Health for review and approval. The applicant shall implement all measures within the approved Vector Control Plan throughout the active life of the dairy.</p> | LS | |

| Environmental Impact | Level of Significance Before Mitigation | | Mitigation Measure/Alternative | Level of Significance After Mitigation | |
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| | | | <p>The following operational measures identified in the EIR for the ACO shall be implemented.</p> <ol style="list-style-type: none"> 1. All confined animal facilities shall implement the following Best Management Practices to address potential fly problems: <ol style="list-style-type: none"> a. Daily inspection of manure flushing systems to ensure that manure is being effectively removed from flushed areas, with particular attention paid to corners and isolated areas; b. Daily inspections of water supply and circulation systems to ensure that any leaks are promptly repaired. These inspections shall include all watering troughs to ensure that mechanisms for controlling water level are operating effectively and are protected from damage; c. Regular blading of feeding lanes in freestall barns and corrals to ensure that spilled feed is promptly removed and disposed; d. Daily removal of manure and spilled feed from stalls in freestall barns; e. Scraping of corrals at least twice a year to minimize the potential for development of fly populations on manure; f. Weekly inspection of silage storage areas to ensure proper covering, drainage, and removal of any spoiled silage; g. Weekly inspection of fence lines of corrals and other “edge” areas, and removal of any accumulated manure; h. Periodic monitoring of stable flies by direct observation and counting of the number of stable flies on the legs of a representative number, minimum of two percent, of the support stock herd; i. All exterior doors and windows in milk rooms shall have screens that are inspected monthly to determine if they are working properly, and to identify rips in the screening. Ripped or otherwise damaged screens shall be repaired or replaced immediately; j. If necessary, flytraps shall be set throughout barns at strategic locations. The traps are inspected monthly, or more frequently if necessary, and replaced when saturated with captured flies. | | |

| Environmental Impact | Level of Significance Before Mitigation | | Mitigation Measure/Alternative | Level of Significance After Mitigation | |
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| | | | 2. In addition to fly management practices in the cattle housing and milking areas of dairy facilities, the following sanitation practices shall be implemented at animal confinement facilities to control fly populations: <ol style="list-style-type: none"> a. Dead animals shall be stored in a secured area at the dairy facility, and off-site rendering plant operators shall immediately be notified for pickup of carcasses. Carcasses must be removed within three business days pursuant to ACO Section 18.48.005(A); b. Residual feed shall be removed from infrequently used feeding areas; c. All garbage shall be disposed of in closed dumpsters that are regularly emptied by a contracted waste management service for off-site disposal; d. Grass and other landscape clippings shall be removed from the site for off-site disposal or reuse (as feed or soil amendment). | | |
| Impact HAZ-2: Create significant nuisance conditions due to increased mosquito production Implementation of the proposed Antonio Brasil Dairy Expansion project would not provide additional mosquito-breeding habitat since the proposed dairy expansion would not modify existing active dairy facilities that currently provide potential mosquito habitat. | LS | | Mitigation Measure HAZ-2: None required. | LS | |
| Impact HAZ-3: Contamination from manure pathogens at off-site locations as a result of project operations Implementation of the proposed Antonio Brasil Dairy Expansion project could result in increased export of dry manure, associated pathogens, and residual contaminants to off-site locations, potentially causing adverse human health impacts. | | PS | Mitigation Measure HAZ-3: Over the course of dairy operations, the project sponsor shall obtain written agreement from the recipients of manure exported off site for the following: <ul style="list-style-type: none"> • All manure shall be applied to cropland at rates and times that are reasonable for the crop, soil, climate, special local situations, and management system. Manure applications shall be timed and managed to minimize nitrogen movement below the root zone and to minimize percolation of waste constituents to groundwater. | | SU |

| Environmental Impact | Level of Significance Before Mitigation | | Mitigation Measure/Alternative | Level of Significance After Mitigation | |
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| | | | <ul style="list-style-type: none"> All stormwater that is or has been in contact with manure shall be maintained on site. No storm drainage that has been in contact with manure shall be allowed to flow or seep onto adjacent properties or public roads, or into any waterway. Where the commingling of water containing manure can take place with irrigation wells and irrigation and/or drainage district facilities, these facilities must be protected from pollution by a backflow device or method that is approved by the Division of Environmental Health and/or the appropriate irrigation/drainage district. It is the obligation of the property owner to install and maintain or cause to be installed and maintained the backflow device or method. Manure shall not be applied within 100 feet of any domestic well, irrigation well, or surface water body. Surface water bodies include creeks, streams, lakes and reservoirs, but do not include canals constructed above grade. Adequate protection of surface water bodies or irrigation wells shall prevent discharge or infiltration of manure constituents to the water body or well. <p>The project sponsor shall provide the most recent analysis of the dry manure, in writing, to the manure recipient. The signed agreement between the project sponsor and the recipient of manure exported off site shall be submitted to the Merced County Division of Environmental Health for review.</p> | | |
| | | | Implementation of Alternative 1, No Project, would reduce the magnitude and significance of this effect. | LS | |
| | | | Implementation of Alternative 2, Limited Herd Size, would reduce the magnitude but not the significance from project. | | SU |

| Environmental Impact | Level of Significance Before Mitigation | | Mitigation Measure/Alternative | Level of Significance After Mitigation | |
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| | LS | PS | | LS | SU |
| Hydrology and Water Quality | | | | | |
| <p>Impact HYD-1: Degradation of water quality due to storm water runoff during project construction</p> <p>Construction of the proposed project could result in the erosion of on-site soils or loss of topsoil, which could cause the degradation of water quality in waterways draining the site by reducing the quality of storm water runoff during project construction.</p> | | PS | <p>Mitigation Measure HYD-1:</p> <p>The project applicant shall submit Permit Registration Documents (PRD) for the Construction General Permit Order 2009-0009-DWQ to the SWRCB, and comply with and implement all requirements of the permit. A Legally Responsible Person (LRP) shall electronically submit PRDs prior to commencement of construction activities in the Storm Water Multi-Application Report Tracking System. PRDs consist of the Notice of Intent, Risk Assessment, Post-Construction Calculations, a Site Map, the SWPPP, a signed certification statement by the LRP, and the first annual fee. Following submittal of a Notice of Intent package and development of a SWPPP in accordance with the Construction General Permit, the applicant will receive a Waste Discharge Identification Number from the SWRCB. All requirements of the site-specific SWPPP with revisions shall be included in construction documents and must be available on site for the duration of the project.</p> | LS | |
| <p>Impact HYD-2: Degradation of surface water quality from operation of the Antonio Brasil Dairy Expansion</p> <p>The project would not result in the degradation of surface water quality during project operations because no surface water discharge is proposed or anticipated.</p> | LS | | <p>Mitigation Measure HYD-2:</p> <p>None required.</p> | LS | |
| <p>Impact HYD-3: Groundwater contamination from operation of the Antonio Brasil Dairy Expansion</p> <p>Expanded operations at the Antonio Brasil Dairy Expansion project could result in the degradation of groundwater resources.</p> | | PS | <p>Mitigation Measure HYD-3a:</p> <p>The applicant shall comply with requirements of the NMP/WMP, and implement CVRWQCB requirements included in the individual WDR for the proposed expansion, and with all Merced County ACO requirements not superseded by the conditions of the individual WDR.</p> | | SU |

| Environmental Impact | Level of Significance Before Mitigation | | Mitigation Measure/Alternative | Level of Significance After Mitigation | |
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| | | | <p>Mitigation Measure HYD-3b:</p> <p>As set forth in the NMP, proposed application rates of liquid and/or solid manure shall not exceed agronomic rates. Nutrient samples shall be collected prior to and during application periods to confirm agronomic rates within all portions of cropped areas receiving manure, and to protect water supplies. Soil testing frequency for nitrogen, potassium, phosphorus, and salts are described in the NMP. Modifications to the NMP may be required as outlined in the individual WDR for the proposed expansion to be issued by the CVRWQCB.</p> | | |
| | | | <p>Mitigation Measure HYD-3c:</p> <p>If future additional pond or containment features are constructed, a best practicable treatment or control (BPTC) evaluation shall be submitted to the CVRWQCB to assess compliance with regulations prior to final inspection. The evaluation shall meet the applicable requirements of the CVRWQCB and the approved WDR. The BPTC shall set forth the constructed pond liner specifications and comprehensive technical evaluation of the storage pond and treatment pond to determine if the existing construction will be protective of groundwater. The design shall have conformed to either of the options described below:</p> <ul style="list-style-type: none"> • Tier 1: A pond designed to consist of a double liner constructed with 60-mil high density polyethylene or material of equivalent durability with a leachate collection and removal system (constructed in accordance with Section 20340 of Title 27) between the two liners will be considered to be consistent with Resolution 68-16. • Tier 2: A pond designed in accordance with California Natural Resource Conservation Service (NRCS) Conservation Practice Standard 313 or equivalent; it must demonstrate through the submittal of technical reports that the alternative design is protective of groundwater quality as required in the WDR specifications. <p>Any necessary measures shall be incorporated into the individual WDR issued for the facility.</p> | | |

| Environmental Impact | Level of Significance Before Mitigation | | Mitigation Measure/Alternative | Level of Significance After Mitigation | |
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| | | | <p>Mitigation Measure HYD-3d:</p> <p>The CVRWQCB may require an industry-wide or site-specific salinity report to be submitted to the CVRWQCB for review and approval prior to operation or final inspection. The salinity report shall identify sources of salt in waste generated at the dairy, evaluate measures that can be taken to minimize salt in the dairy waste, and include an affirmative commitment by the applicant to implement measures identified to minimize salt in the dairy waste to meet Basin Plan requirements. Any necessary measures shall be incorporated into the WDR issued for the facility or become a required deliverable of the WDR.</p> | | |
| | | | <p>Mitigation Measure HYD-3e:</p> <p>A site-specific shallow groundwater monitoring system has been implemented for the Antonio Brasil Dairy in the MWISP. As a condition of the individual WDR issued for the facility, the CVRWQCB may require additional shallow groundwater monitoring wells to be monitored or require the facility to contribute to a regional representative groundwater monitoring system to confirm water table gradients and water quality variations. Pending the results from the CVRWQCB Representative Monitoring Program (RMP) and according to the individual WDR, groundwater monitoring wells constructed under the 2005 MWISP may continue to be monitored. Monitoring well requirements and a monitoring schedule shall be included in the WDR issued for the facility. The resulting groundwater monitoring objectives for either the regional program or individual site shall be used to assess and mitigate groundwater impacts.</p> | | |

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| | | | <p>Mitigation Measure HYD-3f: Groundwater monitoring of the on-site domestic and irrigation wells as required under the General Order and individual WDR shall be completed by the dairy operator. Potential future groundwater monitoring wells may be sampled as required by the WDR, or depending on the success of the regional representative monitoring program. If appropriate, surrounding properties with domestic water supply wells within 500 feet of the land application property could be considered for sampling for nitrate and E.C. at a minimum. A well monitoring schedule shall be incorporated into the WDR issued for the facility.</p> | | |
| | | | <p>Mitigation Measure HYD-3g: After project implementation and subsequent groundwater monitoring, if the dairy shows increased concentration in groundwater of constituents of concern, additional manure export, a reduction in herd size, or additional crop acres may be necessary to accommodate the proposed herd size. A new Report of Waste Discharge (ROWD) may be required by the CVRWQCB. The ROWD shall clearly demonstrate that the herd size will not constitute a threat to groundwater quality. If necessary, the RWQCB shall revise the WDR issued to the facility.</p> | | |
| | | | <p>Mitigation Measure HYD-3h: The Department of Planning and Community Development shall make a final inspection of the facility prior to the commencement of expanded operations to confirm the dairy meets local and state requirements.</p> | | |
| | | | Implementation of Alternative 1, No Project, would reduce the magnitude and significance of this effect. | LS | |
| | | | Implementation of Alternative 2, Limited Herd Size, would potentially increase the magnitude but not significance of this effect. | | SU |
| <p>Impact HYD-4: Depletion of groundwater resources Implementation of the proposed project would not result in depletion of groundwater resources since there would be an overall reduction of groundwater use with the proposed dairy expansion.</p> | LS | | <p>Mitigation Measure HYD-4: None required.</p> | LS | |

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| <p>Impact HYD-5: Modification of surface water drainage patterns and an increase in runoff</p> <p>Implementation of the proposed dairy expansion project would not modify surface water drainage patterns, and would not cause localized off-site migration of runoff, erosion, and/or flooding, since the expansion would require minimal grading over a previously disturbed area. All storm water generated by the project would be collected and maintained within the project proponent's larger property.</p> | LS | | <p>Mitigation Measure HYD-5:</p> <p>None required.</p> | LS | |
| <p>Impact HYD-6: Exposure to flood risks</p> <p>The project site could be subject to a flood event, during which dairy facilities could be damaged, or floodwaters could inundate dairy facilities and fields where wet or dry manure had been recently applied, causing impacts to surface water quality. Compliance with Merced County regulations regarding floodplain management would provide protection of active dairy facilities from flood inundation.</p> | LS | | <p>Mitigation Measure HYD-6:</p> <p>None required.</p> | LS | |
| <p>Impact HYD-7: Water supply pathways for pollutant migration</p> <p>Existing water supply wells on site and adjacent to the proposed dairy may represent preferred pathways for pollutant migration to groundwater.</p> | | PS | <p>Mitigation Measure HYD-7:</p> <p>Prior to issuance of any building permit, all existing water supply wells at the facility site and property shall be inspected by the Merced County Division of Environmental Health to ensure that each well is properly sealed at the surface to prevent infiltration of waterborne contaminants into the well casing or surrounding gravel pack. If any of the wells are found not to comply with the Merced County Well Ordinance standards, the project applicant shall retain a qualified professional as described in the respective Ordinance to install the required seal or functional equivalent including setback distances of 100 feet from manured areas as required by the CVRWQCB General Order. Documentation of the inspections and seal installations, if any, shall be provided to the County Division of Environmental Health prior to commencement of dairy expansion operations.</p> | LS | |

| Environmental Impact | Level of Significance Before Mitigation | | Mitigation Measure/Alternative | Level of Significance After Mitigation | |
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| Land Use Compatibility | | | | | |
| <p>Impact LU-1: Consistency with Merced County Land Use Plans and policies adopted to protect the environment, including setback standards</p> <p>As proposed, the Antonio Brasil Dairy Expansion project would be consistent with Merced County land use policies, including setback standards for animal confinement facilities.</p> | LS | | <p>Mitigation Measure LU-1:</p> <p>None required.</p> | LS | |
| <p>Impact LU-2: Land use compatibility with existing off-site residential uses adjacent to the project area</p> <p>Implementation of the proposed Antonio Brasil Dairy Expansion project could be incompatible with existing off-site residences due to the siting of active dairy facilities in close proximity to these uses. While there have been no nuisance fly complaints for the dairy, the proposed dairy expansion would not meet Merced County setback requirements for the control of nuisance conditions.</p> | | PS | <p>Mitigation Measure LU-2a:</p> <p>Implement the odor control measures set forth in Mitigation Measure AQ-6a.</p> | LS | |
| | | | <p>Mitigation Measure LU-2b:</p> <p>Implement the nuisance control measures set forth in Mitigation Measures HAZ-1a and HAZ-1b.</p> | | |
| Cumulative Impacts | | | | | |
| Air Quality | | PS | <p>Mitigation Measure CUM-1a:</p> <p>Implement San Joaquin Valley Air Pollution Control District (SJVAPCD) Rules 8020 and 8021, and the following requirements of the Merced County Animal Confinement Ordinance - Chapter 18.48.050 U, HH, and II.</p> | | SU |

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| | | | <p>Mitigation Measure CUM-1b: The U.S. Environmental Protection Agency, California Air Resources Board, and/or SJVAPCD should sponsor and complete detailed emissions studies of air emissions from all areas of animal confinement facilities, including emissions rates from various sources, activities, and facilities. Concurrently, these agencies should evaluate and document the effectiveness of various emissions control options for managing or lessening air pollutant emissions from animal confinement facilities.</p> | | |
| | | | <p>Mitigation Measure CUM-1c: Upon completion of the emissions studies set forth above, and should it be determined that controls on emissions from animal confinement facilities are necessary to reach attainment status, the SJVAPCD should incorporate the resulting emissions inventory into its attainment planning for criteria pollutants for which the Air Basin is in nonattainment.</p> | | |
| Biological Resources | LS | | No mitigation available. | LS | |
| Cultural Resources | LS | | No cumulatively considerable contribution. | LS | |
| Geological Resources | LS | | No cumulatively considerable contribution. | LS | |
| Hazards (Nuisance Insects) | LS | | No cumulatively considerable contribution. | LS | |
| Hydrology and Water Quality | | PS | <p>Mitigation Measure CUM-6a: Implement Section 10.48.050 A, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, V, Z, AA, BB, DD, EE, JJ, KK, LL and NN; Section 18.48.055 A, B, C.4.d, C.4.m, D, E, and F; and Section 18.48.060 A, D, E, G, H, I, K, L, M, Q, S, and T of the Animal Confinement Ordinance.</p> | | SU |
| | | | <p>Mitigation Measure CUM-6b: The following Best Management Practices shall be implemented by all dairies and confined animal facilities as applicable: 1. Positive drainage shall be included in project design and construction to ensure that excessive ponding does not occur. The design shall comply with Title 3, Division 2, Chapter 1, Article 22, Section 646.1 of the Food and Agriculture Code for construction and maintenance of dairy or facility surroundings, corrals, and ramps, as described below.</p> | | |

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| | | | 2. Dirt or unpaved corrals, or unpaved lanes, shall not be located closer than 25 feet from the milking barn or closer than 50 feet from the milk house. Corral drainage must be provided. 3. A paved (concrete or equivalent) ramp or corral shall be provided to allow the animals to enter and leave the milking barn. This paved area shall be curbed (minimum of 6 inches high and 6 inches wide) and sloped to a drain. Cow washing areas shall be paved (concrete or equivalent) and sloped to a drain. The perimeter of the area shall be constructed in a manner that will retain the wash water to a paved drained area. Paved access shall be provided to permanent feed racks, mangers, and water troughs. Water troughs shall be provided with: (1) a drain to carry the water from the corrals; and (2) pavement (concrete or equivalent) which is at least 10 feet wide at the drinking area. 4. The cow standing platform at permanent feed racks shall be paved with concrete or equivalent for at least 10 feet back of the stanchion line. 5. As unpaved areas are cleaned, depressions tend to form, allowing ponding and increased infiltration. Regular maintenance shall include filling of depressions. Personnel shall be taught the correct use of manure collection machines (wheel loaders or elevating scrapers). | | |
| | | | Mitigation Measure CUM-6c: For all new or expanding confined animal facilities, the Division of Environmental Health shall make a final inspection of the facility prior to the commencement of operations to confirm the dairy meets all local and state requirements. | | |
| | | | Mitigation Measure CUM-6d: All existing water supply wells at a proposed new or modified animal confinement facility site (including those located away from the confined animal facilities in the cropland areas) shall be inspected by the Merced County Division of Environmental Health to ensure that each well is properly sealed at the surface to prevent infiltration of waterborne contaminants into the well casing or surrounding gravel pack. If any of the wells are found not to comply with the Merced County Well Ordinance | | |

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| | | | standards described in Impact HAZ-3, the applicant or confined animal facility operator shall retain a qualified professional as described in the County Well Ordinance to install the required seal or functional equivalent. Documentation of the inspections and seal installations, if any, shall be provided to the County Division of Environmental Health prior to commencement of dairy operations. | | |
| | | | Mitigation Measure CUM-6e: The Regional Water Quality Control Board should evaluate the potential emissions to groundwater of salts, nutrients, and other substances from all areas of confined animal facilities, including corrals, treatment ponds, and cropped application fields. | | |
| | | | Mitigation Measure CUM-6f: Based on the results of this study, the Regional Water Quality Control Board should adopt uniform standards that apply to all confined animal facilities within the Central Valley for permitted seepage rates from all areas, including corrals, treatment ponds, and application fields; maximum permeability rates for areas that require lining to prevent groundwater degradation; and implementation of an antidegradation policy for groundwater. | | |
| Land Use and Planning | LS | | No cumulatively considerable contribution. | LS | |
| Mineral Resources | LS | | No cumulatively considerable contribution. | LS | |
| Noise | LS | | No cumulatively considerable contribution. | LS | |
| Transportation and Circulation | | PS | No mitigation available. | | SU |
| Utilities and Service Systems | LS | | No cumulatively considerable contribution. | LS | |
| Growth Inducement and Secondary Effects Implementation of the Antonio Brasil Dairy Expansion project would not result in any growth inducement. | LS | | None required. | LS | |

| Environmental Impact | Level of Significance Before Mitigation | | Mitigation Measure/Alternative | Level of Significance After Mitigation | |
|--|---|----|--------------------------------|--|----|
| | LS | PS | | LS | SU |
| <p>Irreversible Commitment of Resources</p> <p>The demand for all such resources is expected to increase regardless of whether or not the project is developed. As discussed in the ACO EIR, the number of dairy facilities in the San Joaquin Valley is expected to increase under the cumulative herd forecast. Therefore, if not consumed by this project, these resources would likely be committed to other projects in the region intended to meet this anticipated growth. The investment of additional resources in the project would be typical of the level of investment normally required for dairies of this scale. Mitigation measures have been included in this EIR to reduce and minimize the impact to renewable and non-renewable resources.</p> | LS | | None required. | LS | |
| <p>Potential Environmental Damage from Accidents</p> <p>The project proposes no uniquely hazardous uses, and its operation would not be expected to cause environmental accidents that would affect other areas.</p> | LS | | None required. | LS | |

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